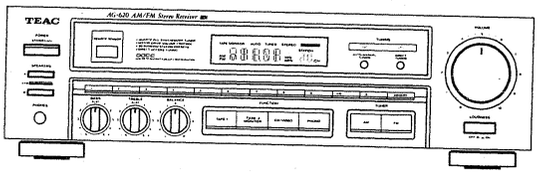
TEAC

AG-620/750

MODEL

SERVICE MANUAL

TEAC®



SERVICE MANUAL

AG-620

AM/FM Stereo Receiver

NOTES

- PC boards shown are viewed from parts side.
- Parts marked with ＊ require longer delivery time.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [ ] mark can be used only with the version designated.
  [J]:JAPAN [US]:U.S.A. [C]:CANADA [GE]:GENERAL EXPORT
  [E]:EUROPE [UK]:U.K. [A]:AUSTRALIA

Effective : December, 1992

5704063900

1. SPECIFICATIONS

Amplifier Section

Output power:
F.T.C. Rating: 50 watts RMS per channel minimum, both channels driven into 8 ohms from 30 Hz to 20 kHz with no more than 0.08% total harmonic distortion (U.S.A./Canada)
DIN Power: 55 watts (Europe/U.K.)
RMS Power (30 – 20 kHz): 48 watts 0.04%

Total Harmonic Distortion:
0.02% 54 watts 1 kHz

Input Sensitivity/Impedance:
PHONO (MM): 2.5 mV/47k ohms
CD, TAPE1/2: 150 mV/47k ohms

Frequency Responce:
20 Hz – 20 kHz ±1 dB (PHONO)
10 Hz – 70 kHz +1, –3 dB (CD, TAPE1/2)

Signal-to-Noise Ratio (IHF A Network):
PHONO (MM): 70 dB
CD, TAPE1/2: 94 dB

Tone Control:
Bass: ±10 dB at 100 Hz
Treble: ±10 dB at 10 kHz

FM Tuner Section

(without notes 98.1 MHz 65 dBf)

Tuning Range:
87.5 MHz – 108.0 MHz (100-kHz steps) (U.S.A./Canada)
87.50 MHz – 108.00 MHz (50-kHz steps) (Europe/U.K.)

Usable Sensitivity (IHF):
Mono 10.8 dBf (U.S.A./Canada)
Mono 13 dBf (Europe/U.K.)

50 dB Quieting Sensitivity:
Mono 18 dBf/Stereo 38 dBf (U.S.A./Canada)
Mono 20 dBf/Stereo 42 dBf (Europe/U.K.)

Capture Ratio:
1.5 dB (U.S.A./Canada)
1.8 dB (Europe/U.K.)

Image Rejection Ratio:
55 dB (U.S.A./Canada)
80 dB (Europe/U.K.)

AM Suppression Ratio: 60 dB

RF Intermodulation: 65 dB

Total Harmonic Distortion (1 kHz):
Mono 0.2%/Stereo 0.4%

Frequency Response:
30 Hz – 15 kHz +1 dB, –1.5 dB

Stereo Separation (1 kHz): 40 dB

Signal-to-Noise Ratio:
Mono 78 dB/Stereo 70 dB

AM Tuner Section

Tuning Range:
530 kHz – 1,710 kHz (10-kHz steps) (U.S.A./Canada)
522 kHz – 1,611 kHz (9-kHz steps) (Europe/U.K.)

Usable Sensitivity:
50 dB/m

Total Harmonic Distortion:
0.6% at 85 dB/m

Signal-to-Noise Ratio:
50 dB at 85 dB/m

General

Power Requirements:
120 V AC, 60 Hz (U.S.A./Canada)
230 V AC, 50 Hz (Europe)
240 V AC, 50 Hz (U.K.)

Power Consumption:
1.3 A (U.S.A./Canada)
260W (Europe/U.K.)

AC Outlet:
Switched × 2, Total 200W max or 2A max (U.S.A./Canada)
Switched × 1,200W max (Europe/U.K.)

Dimensions (W × H × D):
435 × 126 × 290 mm (17-1/8" × 4-15/16" × 11-7/16")

Weight (net): 7.0 kg (15.5 lbs.)

Standard Accessories:
AM Loop Antenna (with Stand) × 1
FM "T" Type Antenna × 1
Remote Control Unit (UR-401) × 1
Battery ("AA", "R06", SUM-3) × 2
Matching Transformer (for 300 ohms to 75 ohms conversion) (Europe/U.K.) × 1

- Improvement may result in specifications and features changing without notice.
- Photos and illustrations may differ slightly from production models.

Caution:
Since the receiver incorporates a microprocessor, it may not operate correctly because of external noise, etc. If this happens, disconnect the power plug from the wall outlet, and wait approx. ten seconds, reconnect the power plug then turn the POWER switch ON and restart operations.

2. ADJUSTMENTS

2-1. ADJUSTMENT PROCEDURE

ITEM	SETTINGS			ADJUSTMENT POINTS	ADJUST
	INPUT	OUTPUT	AG-620		
FM SECTION					
1. DISCRIMINATOR	(A) 98.0 MHz 1 kHz, ± 75 kHz dev 65 dBf (ANT input)	(C)	AUTO or Mono 98.0 MHz	L806	0 mV
2. VCO	(B) 98.0 MHz 0 dev 65 dBf (ANT input)	(D)	AUTO 98.0 MHz	VR802	19.00 kHz
3. DISTORTION (STEREO)	(B) 98.0 MHz 1 kHz, ± 68.25 kHz dev Selector : L or R Pilot : ± 6.75 kHz dev 65 dBf (ANT input)	(E)	AUTO 98.0 MHz	IFT (on FRONT END)	Min distortion (L or R)
4. SEPARATION (EUROPE only)	(B) 98.0 MHz Stereo Signal 65 dBf (ANT input)	(F)	AUTO 98.0 MHz	VR803	Min. crosstalk
5. TUNING LEVEL Note: After doing step 5, be sure to adjust step 6.	(A) 98.0 MHz 0 dev 28 dBf (ANT input)	TUNED indicator (on AG-620' Front Panel)	AUTO or MONO 98.0 MHz	VR801	Until TUNED indicator lights up.
AM SECTION					
6. TUNING LEVEL	(G) 1,000 (999) kHz 65 dB/m (Loop ANT input)	TUNED indicator (on AG-620's Front Panel)	1,000 (999) kHz	VR804	Until TUNED indicator lights up.
AUDIO SECTION					
7. IDLE CURRENT Note: Be sure to do step 7 after 5 minutes from POWER ON.		(H)	VOLUME contrlol (Front Panel) : 0	VR202 (L) VR201 (R)	5 mV

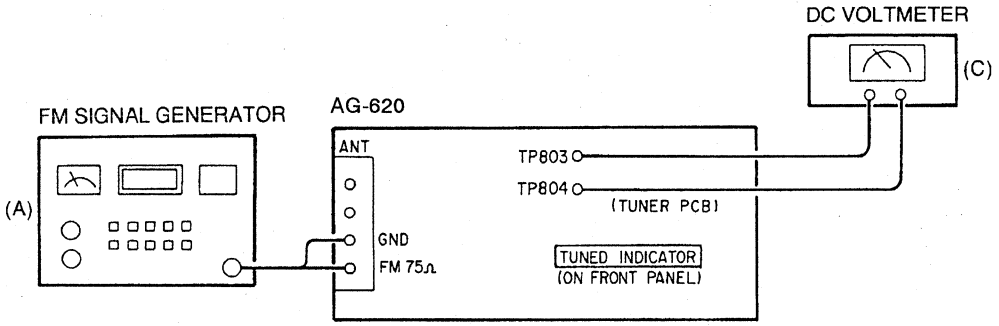


Fig. 2-1

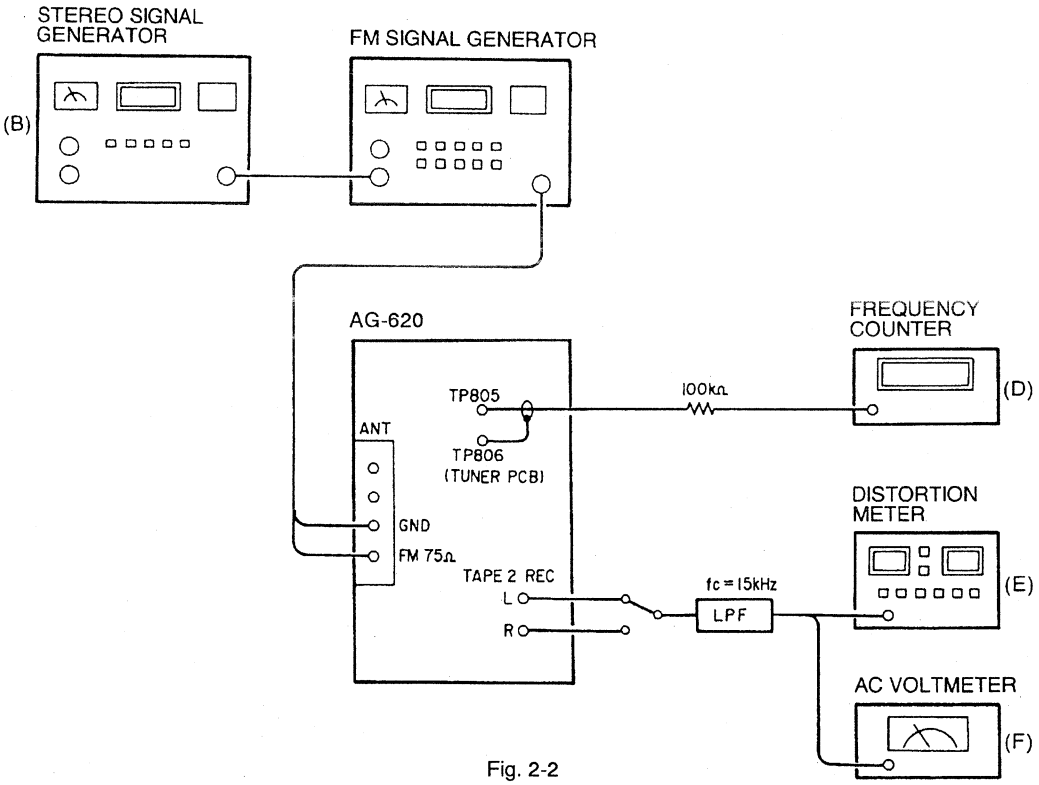


Fig. 2-2

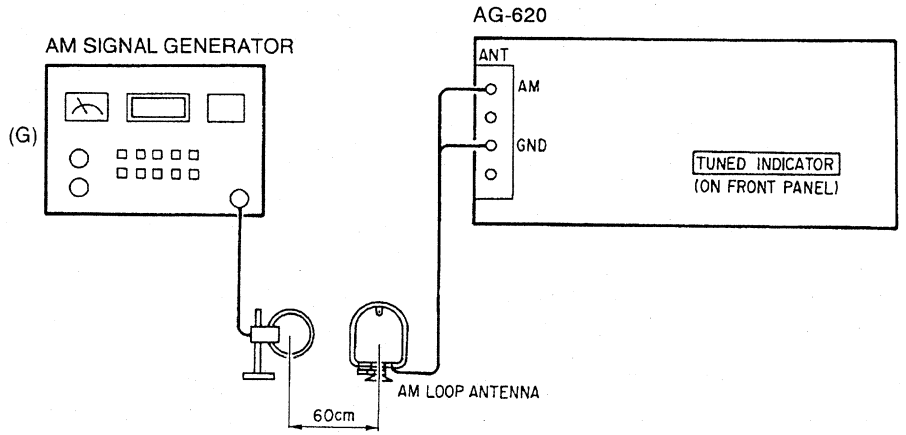


Fig. 2-3

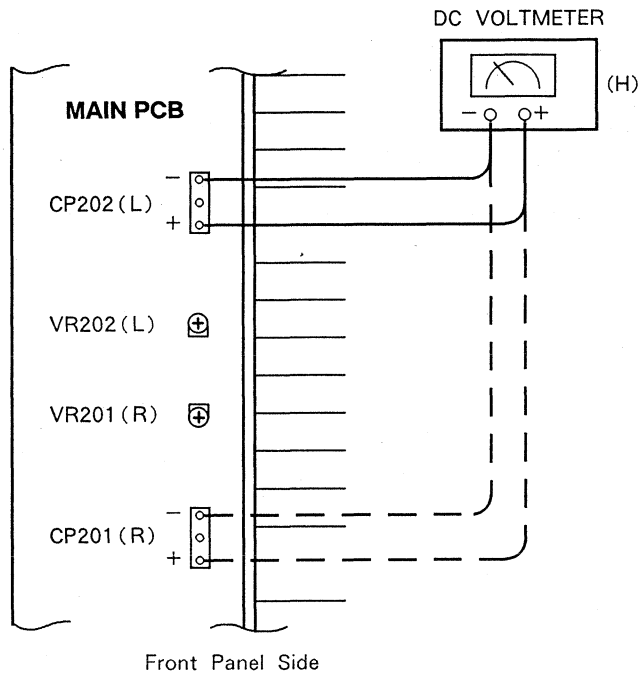


Fig. 2-4

2-2. ADJUSTMENTS AND TEST POINTS

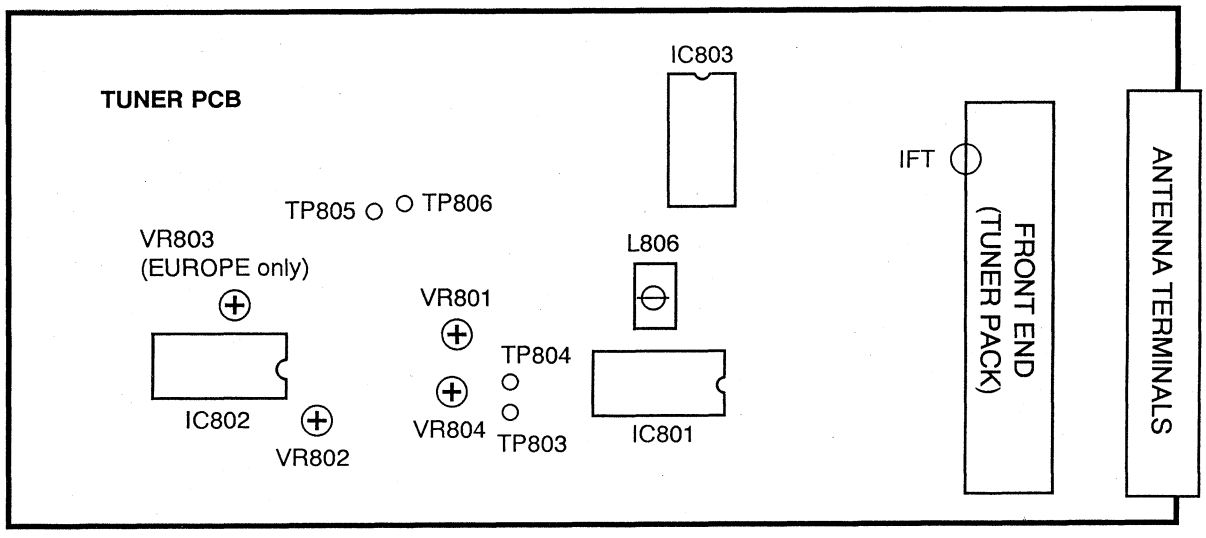


Fig. 2-5

For adjustments and test points on MAIN PCB, see Fig. 2-4.

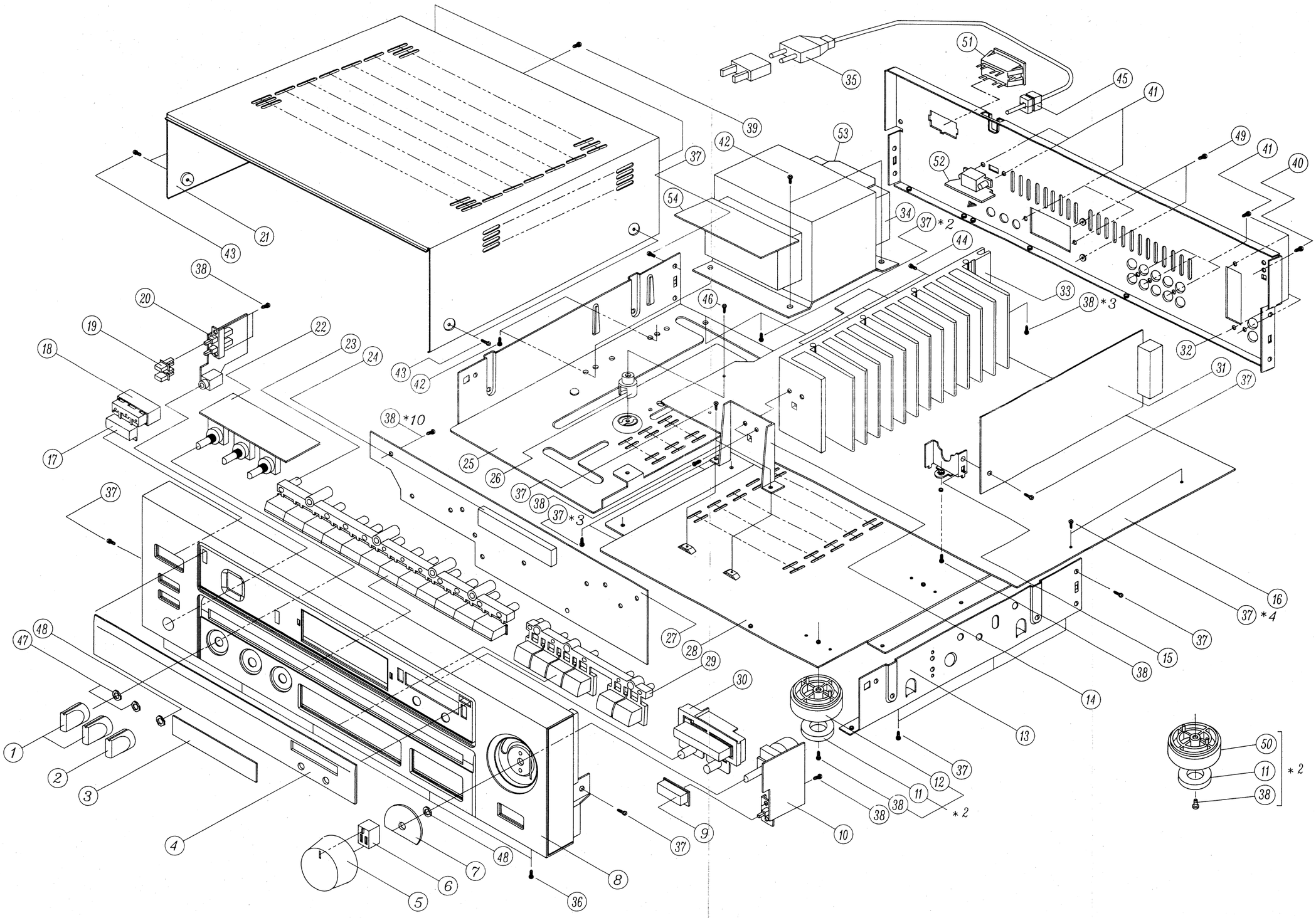
3. EXPLODED VIEW AND PARTS LIST

This section is applicable to the U.S.A./Canada models.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1	9A04027900	KNOB, T/BASS	
2	9A04028000	KNOB, LOUDNESS	
3	*9A04003100	FILTER, FLT	
4	*9A04036600	WINDOW, DISPLAY	
5	9A04029000	KNOB, VOLUME	
6	*9A04029100	INDICATOR, MAIN V/R P.P	
7	*9A04029200	VR INDICATOR PCB ASSY, WE4011KI	
8	*9A04040500	PANEL, FRONT	
9	9A04028600	KNOB, LOUD	
10	*9A04041000	MOTOR VR PCB ASSY, WP4095KI	
11	*9A04003300	CUSHION, FOOT	
12	9A04005400	FOOT, A	
13	*9A04036700	GUIDE, BOTTOM	
14	*9A04037600	BRACKET, HEAT SINK	Refer to HEAT SINK ASSY on page 11.
15	*9A04015900	BRACKET, TUNER PCB	
16	*9A04042000	MAIN PCB ASSY, WP4097KI	
17	9A04027700	BUTTON, POWER	
18	*9A04048000	GUIDE, POWER	
19	9A04027800	BUTTON, SPEAKER	
20	*9A04040800	SP SELECTOR PCB ASSY, WP4094KI	
21	*9A04036200	COVER, TOP	
22	*9A04041200	BAL TONE PCB ASSY, WP4096KI	
23	9A04047900	BUTTON, PRESET	
24	*9A04031700	HOLDER, FLT	
25	*9A04036400	CHASSIS, BOTTOM	
26	*9A04036800	SUPPORTER, PCB	
27	*9A04040600	FRONT PCB ASSY, WP4093KI	
28	*9A04036500	PLATE, BOTTOM	
29	9A04042300	BUTTON, FUNCTION	
30	9A04028400	KNOB, TUNING	
31	*9A04038000	TUNER PCB ASSY, WP4092KI	
32	*9A04036300	CHASSIS, BACK	
33	*9A04037700	HEAT SINK, MAIN	Refer to HEAT SINK ASSY on page 11.
34	⚠ 9A04037400	POWER TRANS., 60HZ/120V	
35	⚠*9A04004200	CORD, AC	
36	*9A04037300	SCREW, TAP CUT 3*6 BK	
37	*9A04003600	SCREW, BH M3*6 B" TITE YL	
38	*9A04003700	SCREW, BH M3*8 B" TITE YL	
39	*9A04003800	SCREW, BH M3*8 B" TITE BK	
40	*9A04037000	SCREW, TAP BH M3*8 CR	
41	*9A04004000	SCREW, BH M3*10 B" TITE BK	
42	*9A04003500	SCREW, BH M4*8 YL	
43	*9A04004100	SCREW, BH M4*8 B" TITE BK	
44	*9A04005000	SCREW, HH M3*14 TL B"TITE	
45	⚠*9A04003200	STOPPER, AC CORD	
46	*9A04037100	SCREW, BH M3*12 B"TITE YL	
47		NUT, ϕ7	
48		NUT, ϕ8	
49	*9A04037200	SCREW, BH M3.5*8 B"TITE BK	
50	9A04003400	FOOT, B	
51	⚠*9A04004300	RECEPTACLE, AC	
52	*9A04041800	IMPEDANCE SW PCB ASSY, WP4101KI	
53	*9A04041600	TRANS. (B) PCB ASSY, WP4100KI	
54	*9A04041400	TRANS. (A) PCB ASSY, WP4098KI	

INCLUDED ACCESSORIES

Listed on page 11.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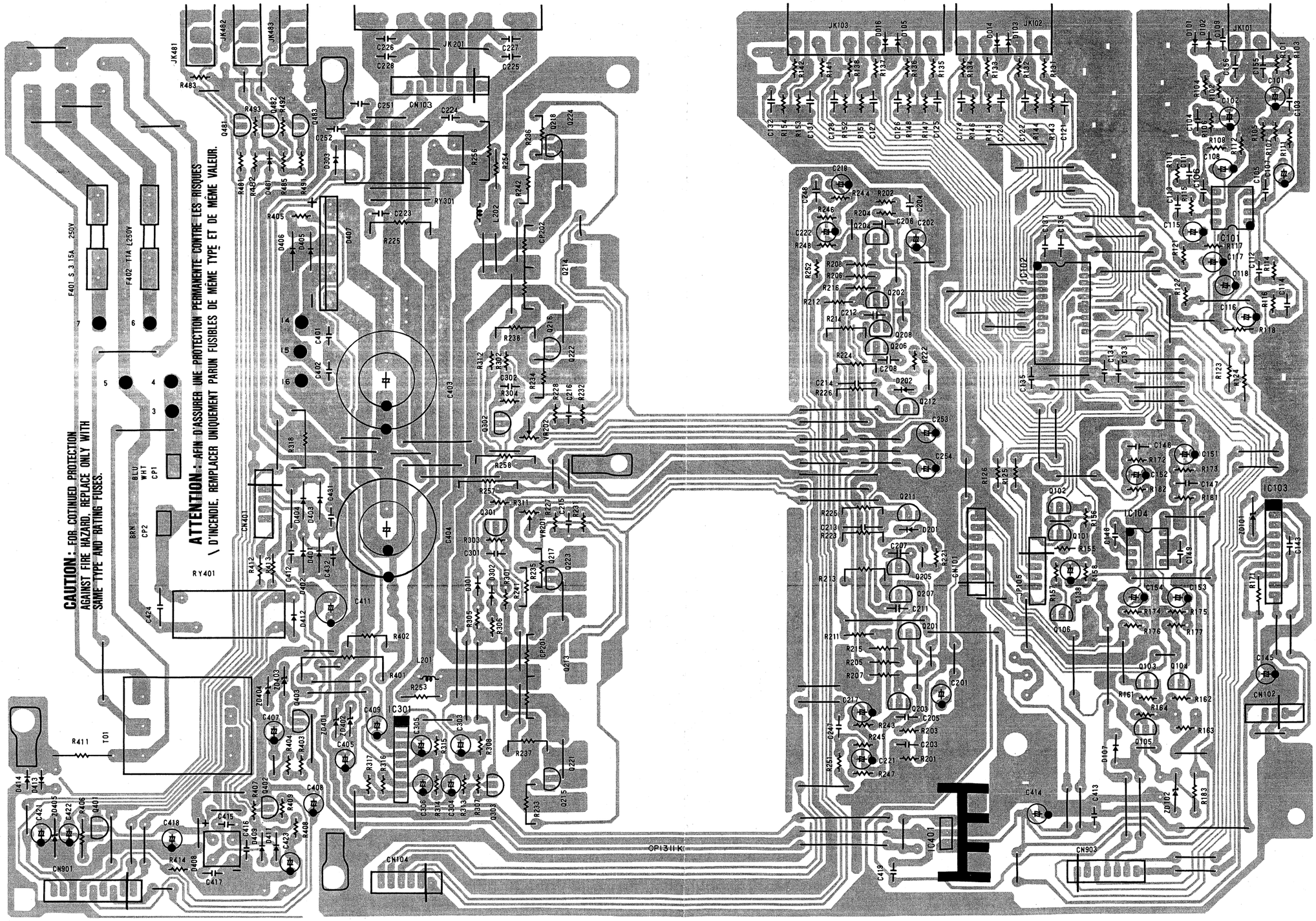
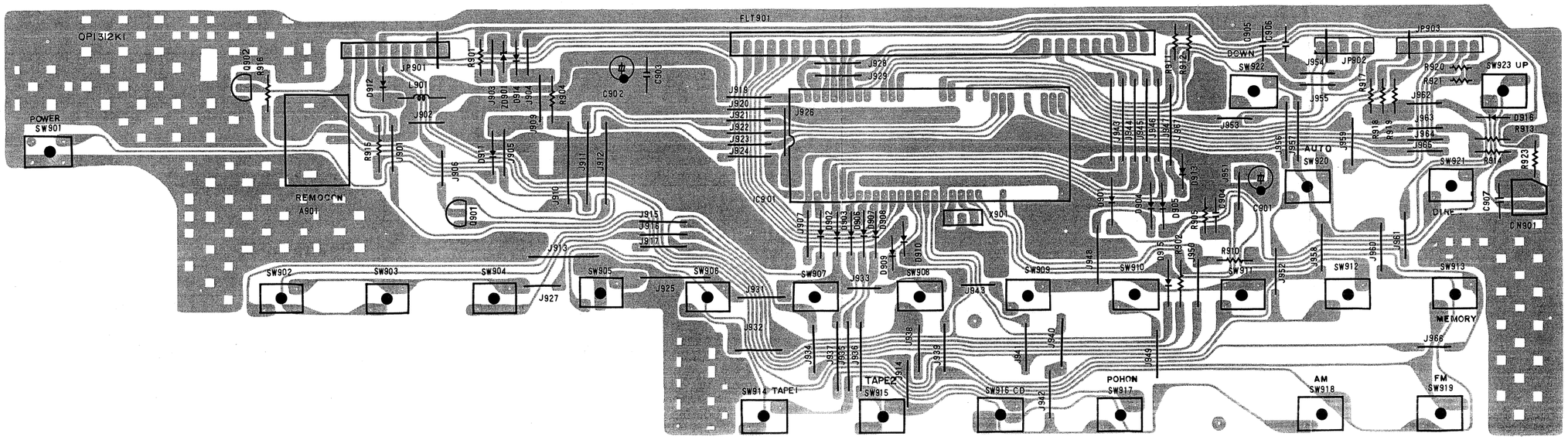
4. PC BOARDS AND PARTS LIST

This section is applicable to the U.S.A./Canada models.

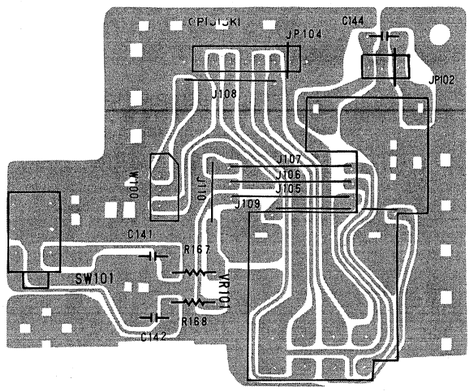
MAIN PCB



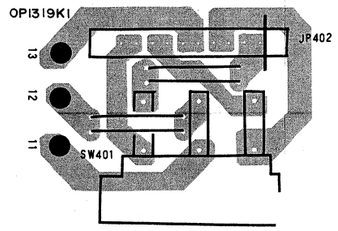
FRONT PCB



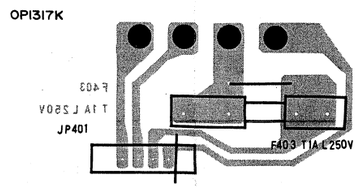
MOTOR VR PCB



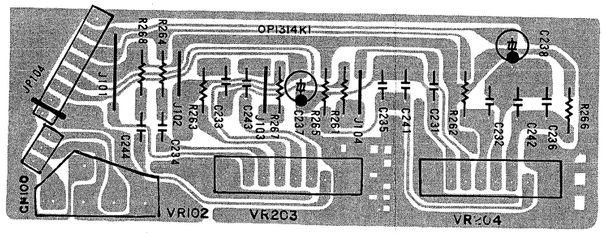
IMPEDANCE SW PCB



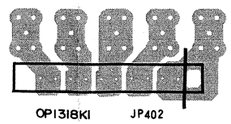
TRANS. (A) PCB



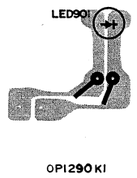
BAL TONE PCB



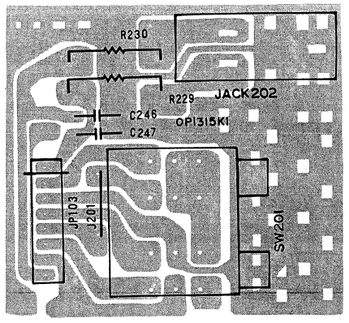
TRANS. (B) PCB



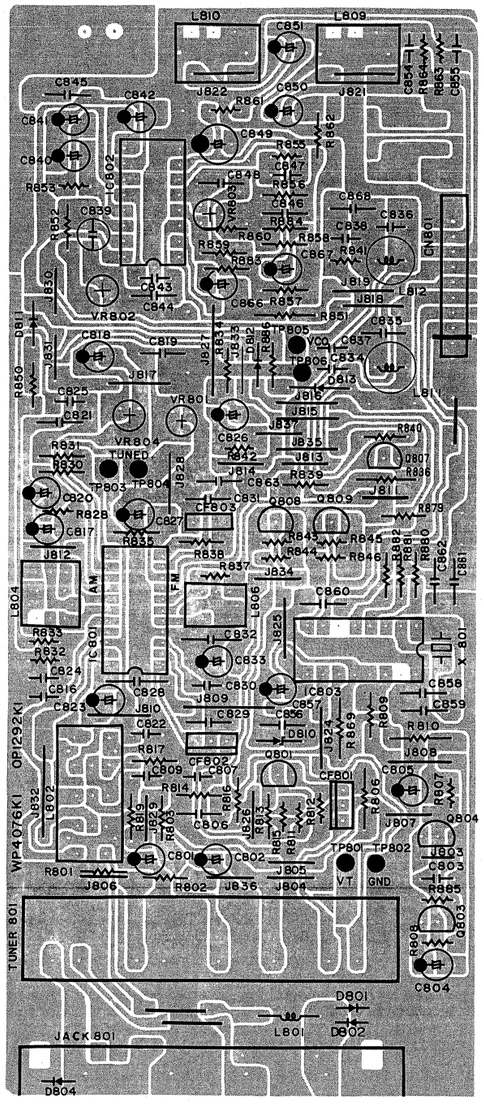
VR INDICATOR PCB



SP SELECTOR PCB



TUNER PCB



MAIN PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A04042000	MAIN PCB ASSY,WP4097KI
	*9A04015900	BRACKET, TUNER PCB
	*9A04016000	HEAT SINK
	9A04016200	TERMINAL, GND
#3	9A04045400	CONNECTOR ASSY, IP
#4	9A04045200	CONNECTOR ASSY, IP
#5	9A04045100	CONNECTOR ASSY, IP
#7	9A04045300	CONNECTOR ASSY, IP
#14-16	9A04025300	PIN, RAPPING 1*1*15
C403,404	⚠ 9A04044000	C, ELEC 4700UF/50V
C411	⚠ 9A04043900	C, ELEC 1000UF/35V
C418	⚠ 9A04026500	C, ELEC 470UF/25V
C424	⚠ 9A04025600	C, CERA 0.0047UF/250V
CN102	9A04043300	CONNECTOR, 3P
CN103	9A04012900	CONNECTOR, 8P
CN104	9A04025000	CONNECTOR, 6P
CN901	9A04005700	CONNECTOR, 9P
CN903,101	9A04017100	CONNECTOR, 7P
CP201,202	⚠ 9A04019100	R, CEMENT 5W 0.22 K*2
D101-106	9A04007900	DIODE, ISS133-72
D201,202	9A04007900	DIODE, ISS133-72
D301,302	9A04007900	DIODE, ISS133-72
D401-404	⚠ 9A04021100	DIODE, IN4002
D405,406	9A04021100	DIODE, IN4002
D407	⚠ 9A04043000	DIODE, D3SB20/DBF40C
D408	⚠ 9A04042900	DIODE, KBI03
D409,411	9A04021100	DIODE, IN4002
D412,303	9A04021100	DIODE, IN4002
D413,414	9A04007900	DIODE, ISS133-72
D481	9A04007900	DIODE, ISS133-72
F401	⚠ 9A04042800	FUSE, SB 3.15A 250V
F401	⚠ 9A04045500	FUSE HOLDER
IC101,104	9A04019800	IC, NJM4558DD
IC102	9A04044900	IC, NJU 7313L
IC103	9A04019700	IC, BA6209N
IC301	9A04025800	IC, UPC1237HA
IC401	⚠ 9A04045000	IC, KIA7812AP
JACK101	9A04043400	JACK, RCA SH-RI62
JACK102	9A04043500	JACK, RCA SH-RI64
JACK103	9A04043600	JACK, RCA SH-RI66
JACK201	9A04025100	TERMINAL, SP 8P AU8-2021
JACK481	9A04025200	JACK,PHON MINI LGY6501060
JACK482	9A04025200	JACK,PHON MINI LGY6501060
JACK483	9A04025200	JACK,PHON MINI LGY6501060
JP105,401	9A04017600	HOLDER,CABLE 4P
L201,202	9A04043700	COIL, INDUCTOR 0.15UH
PC 1, 2	9A04024600	TAP, STUD 562-014B
Q101-104	9A04024400	TR, KTC2878B
Q105,106	9A04047500	TR, DTA114ESTN/KRA2202
Q201-204	9A04024300	TR, KSA992F-X
Q205-208	9A04012600	TR, KSC1845F
Q401	⚠ 9A04015700	TR, KTC3198GR
Q402	9A04047700	TR, KSC 2316-Y
Q403	9A04047600	TR, KSA916-Y
Q481-483	9A04012500	TR, 2SC1710S-R
RI83	⚠ 9A04047000	R, CARBON 1/4W 2.2K J
R255,256	⚠ 9A04018900	R, METAL 1W 10 J
R318	⚠ 9A04044800	R, METAL 1W 180 J
R401	9A04044700	R, METAL 2W 1.5K J
R411	⚠ 9A04025700	R, CARBON 1/2W 2.2M J P
RY301	9A04043800	RELAY, POWER HR-CR323-12V
RY401	⚠ 9A04025400	RELAY, POWER HR-CR313-12V
T01	⚠ 9A04024800	POWER TRANS., 60HZ/120V
VR201,202	9A04020200	VR, SEMI RH0615C-1KB
ZD101	9A04007800	DIODE, ZENER 1/2W 5.1V
ZD102	9A04020800	DIODE, ZENER MTZ3.9B
ZD401,402	9A04045700	DIODE, ZENER MTZ J6.2B
ZD403	9A04020900	DIODE, ZENER 12V (MTZ 12B)
ZD404	9A04045600	DIODE, ZENER 1/2W 15V
ZD405	9A04020700	DIODE, ZENER MTZ J6.8B
Q211,212	9A04024300	TR, KSA992F-X
Q215,216	9A04047700	TR, KSC 2316-Y
Q217,218	9A04047600	TR, KSA916-Y
Q301,302	9A04012600	TR, KSC1845F
Q303	9A04024300	TR, KSA992F-X

MOTOR VR PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A04041000	MOTOR VR PCB ASSY,WP4095KI
JP102	9A04018000	HOLDER, CABLE 3P
JP104	9A04030600	HOLDER, CABLE 7P
SW101	9A04032700	SW, PUSH SPUL 12*2T
VR101	9A04049100	VR, MOTOR 100KBX2
W100	9A04013200	WAFER, 5267-03A

IMPEDANCE SW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A04041800	IMPEDANCE SW PCB ASSY, WP4101KI
JP402	9A04049700	HOLDER, CABLE 10P
N011,12	9A04050100	CONNECTOR ASSY, IP
N013	9A04050000	CONNECTOR ASSY, IP
SW401	⚠ 9A04019200	SW, SLIDE 2C2P 5A/250V

BAL TONE PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A04041200	BAL TONE PCB ASSY,WP4096KI
	9A04017700	HOLDER, CABLE 6P
LN100	9A04049400	CONNECTOR ASSY, 3P-320MM
VR102	9A04033500	VR, ROUND 200KW
VR203,204	9A04033400	VR, ROUND 100KC*2

FRONT PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A04040600	FRONT PCB ASSY, WP4093KI
	9A04031700	HOLDER, FLT
A901	9A04030900	REMOTE RECEIVER, MM001E
CN901	9A04030700	WAFER, 5268-02A
D901-908	9A04007900	DIODE, ISS133-72
D911-916	9A04007900	DIODE, ISS133-72
FLT901	9A04031000	FLT, CC1075C
IC901	9A04031300	IC, TMP47C670N-V724(Z)
JP901	9A04030800	HOLDER, CABLE 9P
JP902	9A04017800	HOLDER, CABLE 5P

JP903	9A04030600	HOLDER, CABLE 7P
L901	9A04008100	L-INDUCTOR, LAL02TAIR0K
Q901	9A04047500	TR, DTA114ESTN/KRA2202
Q902	9A04012500	TR, 2SC1710S-R
SW901	9A04031200	SW, TACT KHH10914
SW902-923	9A04032300	SW, TACT EVQ-QTG 05R
X901	9A04031100	RESONATOR, CERAMIC CST4.19
ZD901	9A04021000	DIODE, ZENER MTZ J8.2B

TRANS. (A) PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A04041400	TRANS.(A)PCB ASSY,WP4098KI
JP401	9A04017600	HOLDER, CABLE 4P

TRANS. (B) PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A04041600	TRANS.(B)PCB ASSY,WP4100KI
JP402	9A04049700	HOLDER, CABLE 10P

VR INDICATOR PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A04029200	VR INDICATOR PCB ASSY, WE4011KI
	9A04029400	LED, LTL 4213 (RED)
	9A04029600	CONNECTOR ASSY, 2P-200MM

SP SELECTOR PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A04040800	SP SELECTOR PCB ASSY, WP4094KI
JACK202	9A04034500	JACK, PHONE LGR4512-5000
JP103	9A04017900	HOLDER, CABLE 8P
R229,230 ⚠	9A04019000	R, METAL 1W 560 J
SW201	9A04034600	SW, PUSH SPUN 22*1H

TUNER PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*9A04038000	TUNER PCB ASSY, WP4092KI
	9A04005600	PLATE, EARTH
CF801,802	9A04006100	FILTER, CERA-FM SFE10.7MA5
CF803	9A04006000	FILTER, CERA-AM BFU450C4N
CN801	9A04005700	CONNECTOR, 9P
D801,802	9A04007900	DIODE, 1SS133-72
D810	9A04007800	DIODE, ZENER 1/2W 5.1V
D811-813	9A04007900	DIODE, 1SS133-72
IC801	9A04007200	IC, LA1265
IC802	9A04007300	IC, AN7470
IC803	9A04007100	IC, LM7001
JACK801	9A04005800	BOARD, PUSH TER'(4P)P40420
L801	9A04008100	L-INDUCTOR, LAL02TAIR0K
L802	9A04006400	COIL, AM RBW-07V-0040
L804	9A04038100	IFT, AM BCFAZ-009
L806	9A04006200	IFT, FM 292MEAS-5044DLE
Q801	9A04042600	TR, KTC31940
Q803	9A04012500	TR, 2SC1710S-R
Q804	9A04012600	TR, KSC1845F
Q808,809	9A04012400	TR, 2SA933STN
TP803-806	9A04005900	PIN, TEST 1*1*13
TUNER801	9A04006500	TUNER, FM FE337-A05
VR801	9A04007400	VR, SEMI RH0651C-33KB
VR802	9A04007600	VR, SEMI RH0651C-4.7KB
VR804	9A04007500	VR, SEMI RH0651C-10KB
X801	9A04006600	X'TAL, 7.2MHZ

HEAT SINK ASSY

Refer to Ref. Nos. 14 and 33 on page 6.

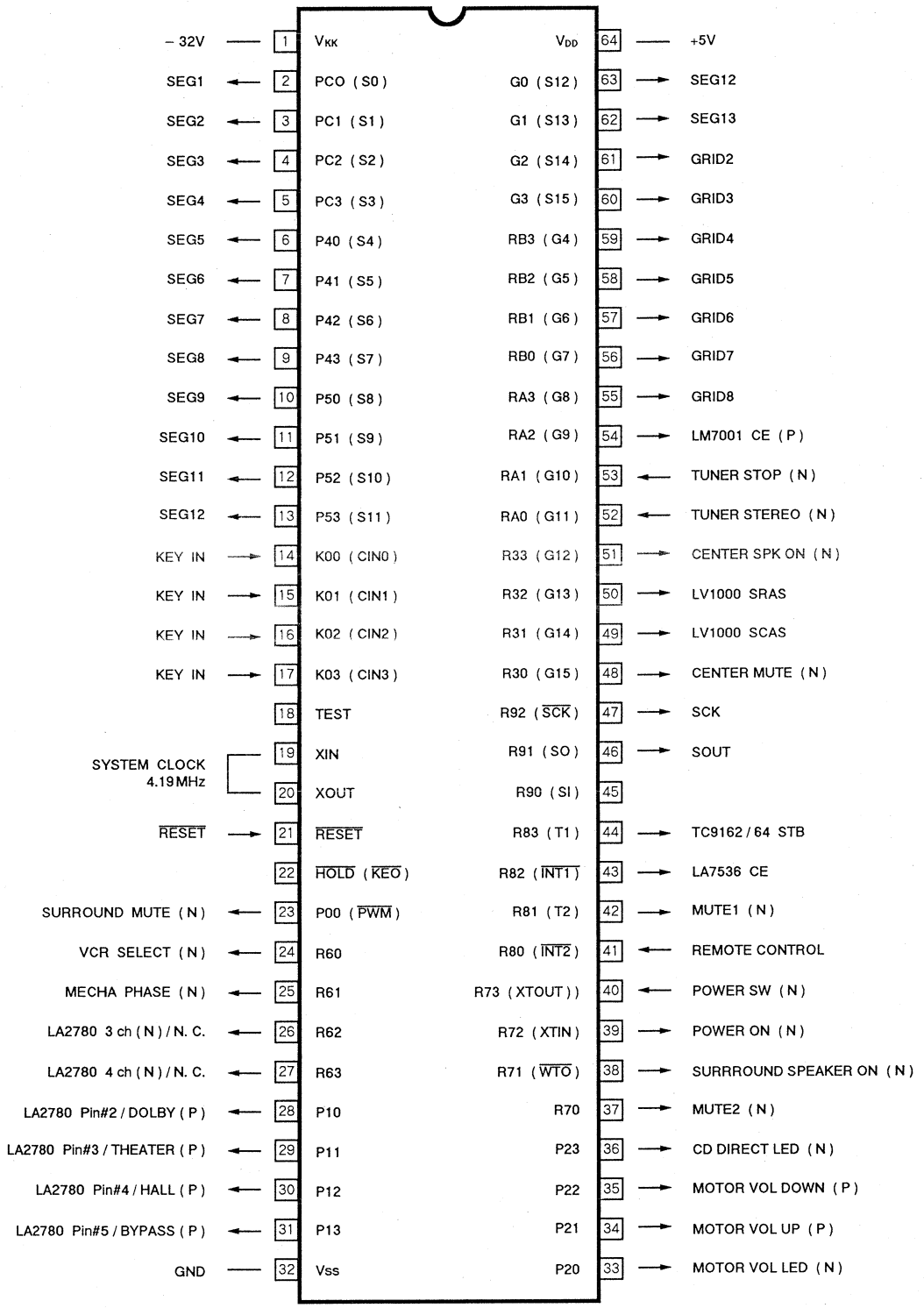
REF. NO.	PARTS NO.	DESCRIPTION
	*9A04037500	HEAT SINK ASSY
	*9A04037600	BRACKET, HEAT SINK
	*9A04037700	HEAT SINK, MAIN
	*9A04005000	SCREW, HH M3*14 TL B"TITE
Q213,214	9A04005300	TR, 2SC4137V
Q221,222	9A04037900	TR, 2SC14467, 8A
Q223,224	9A04037800	TR, 2SA1694-08A

INCLUDED ACCESSORIES

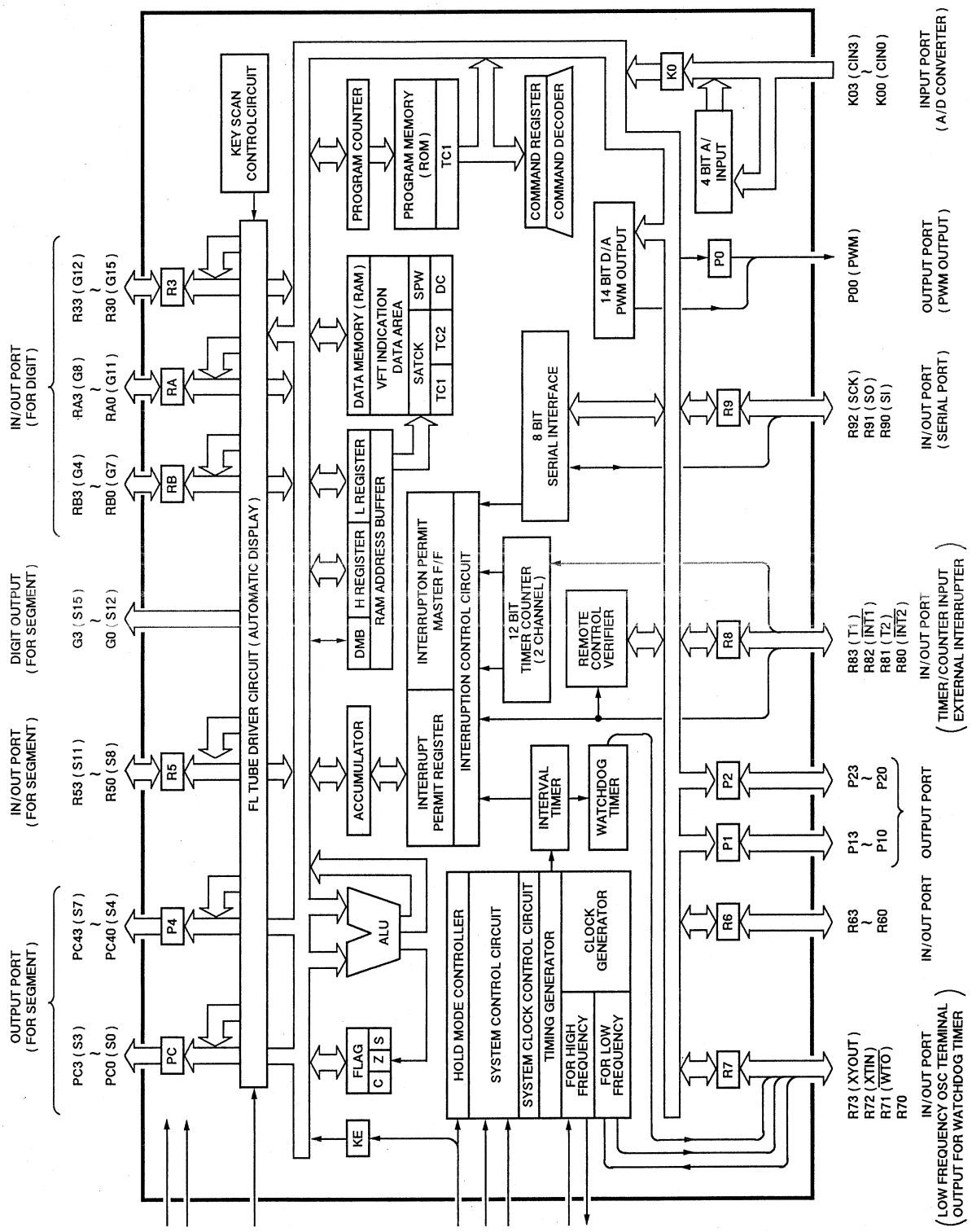
REF. NO.	PARTS NO.	DESCRIPTION
	*9A03967700	AG-620 OWNER'S MANUAL (E/F)
	*9A04042200	REMOTE CONTROL UNIT,UR-404
	*9A04027300	ANTENNA, FM "T" TYPE
	*9A04027400	ANTENNA, AM LOOP
	9A04027500	BATTERY (AA, R06, SUM-3)

5. IC BLOCK DIAGRAMS

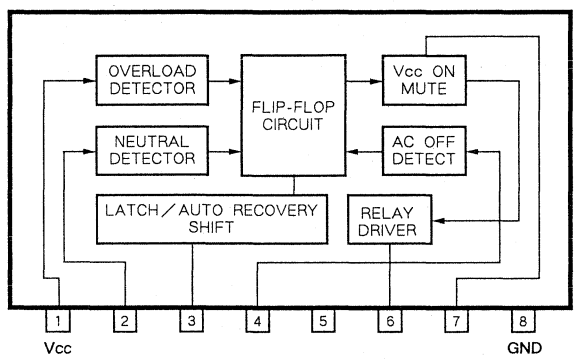
TMP47C670N-V724(Z)


– 32V 1 VKK
SEG1 2 PCO (S0)
SEG2 3 PC1 (S1)
SEG3 4 PC2 (S2)
SEG4 5 PC3 (S3)
SEG5 6 P40 (S4)
SEG6 7 P41 (S5)
SEG7 8 P42 (S6)
SEG8 9 P43 (S7)
SEG9 10 P50 (S8)
SEG10 11 P51 (S9)
SEG11 12 P52 (S10)
SEG12 13 P53 (S11)
KEY IN 14 K00 (CIN0)
KEY IN 15 K01 (CIN1)
KEY IN 16 K02 (CIN2)
KEY IN 17 K03 (CIN3)
18 TEST
SYSTEM CLOCK 4.19MHz 19 XIN
20 XOUT
RESET 21 RESET
22 HOLD (KEO)
SURROUND MUTE (N) 23 P00 (PWM)
VCR SELECT (N) 24 R60
MECHA PHASE (N) 25 R61
LA2780 3 ch (N) / N. C. 26 R62
LA2780 4 ch (N) / N. C. 27 R63
LA2780 Pin#2 / DOLBY (P) 28 P10
LA2780 Pin#3 / THEATER (P) 29 P11
LA2780 Pin#4 / HALL (P) 30 P12
LA2780 Pin#5 / BYPASS (P) 31 P13
GND 32 Vss
VDD 64 +5V
G0 (S12) 63 SEG12
G1 (S13) 62 SEG13
G2 (S14) 61 GRID2
G3 (S15) 60 GRID3
RB3 (G4) 59 GRID4
RB2 (G5) 58 GRID5
RB1 (G6) 57 GRID6
RB0 (G7) 56 GRID7
RA3 (G8) 55 GRID8
RA2 (G9) 54 LM7001 CE (P)
RA1 (G10) 53 TUNER STOP (N)
RA0 (G11) 52 TUNER STEREO (N)
R33 (G12) 51 CENTER SPK ON (N)
R32 (G13) 50 LV1000 SRAS
R31 (G14) 49 LV1000 SCAS
R30 (G15) 48 CENTER MUTE (N)
R92 (SCK) 47 SCK
R91 (SO) 46 SOUT
R90 (SI) 45
R83 (T1) 44 TC9162 / 64 STB
R82 (INT1) 43 LA7536 CE
R81 (T2) 42 MUTE1 (N)
R80 (INT2) 41 REMOTE CONTROL
R73 (XTOUT)) 40 POWER SW (N)
R72 (XTIN) 39 POWER ON (N)
R71 (WTO) 38 SURRROUND SPEAKER ON (N)
R70 37 MUTE2 (N)
P23 36 CD DIRECT LED (N)
P22 35 MOTOR VOL DOWN (P)
P21 34 MOTOR VOL UP (P)
P20 33 MOTOR VOL LED (N)

(P) = HIGH ACTIVE
(N) = LOW ACTIVE


POWER SUPPLY
VDD
VSS
DRIVING POWER FOR FL TUBE
VKK
HOLD INPUT (SENSING INPUT)
HOLD (KE0)
RESET INPUT
RESET
TEST TERMINAL
TEST
HIGH FREQUENCY OSCILLATOR TERMINAL
XIN
XOUT
OUTPUT PORT (FOR SEGMENT)
PC3 (S3) ~ PC0 (S0)
PC43 (S7) ~ PC40 (S4)
IN/OUT PORT (FOR SEGMENT)
R53 (S11) ~ R50 (S8)
DIGIT OUTPUT (FOR SEGMENT)
G3 (S15) ~ G0 (S12)
IN/OUT PORT (FOR DIGIT)
RB3 (G4) ~ RB0 (G7)
RA3 (G8) ~ RA0 (G11)
R33 (G12) ~ R30 (G15)
PC
P4
R5
RB
RA
R3
KEY SCAN CONTROL CIRCUIT
FL TUBE DRIVER CIRCUIT (AUTOMATIC DISPLAY)
PROGRAM COUNTER
PROGRAM MEMORY (ROM)
TC1
COMMAND REGISTER
COMMAND DECODER
DATA MEMORY (RAM)
VFT INDICATION DATA AREA
SATCK
SPW
TC1
TC2
DC
DMB
H REGISTER
L REGISTER
RAM ADDRESS BUFFER
ACCUMULATOR
INTERRUPT PERMIT REGISTER
INTERRUPTON PERMIT MASTER F/F
INTERRUPTION CONTROL CIRCUIT
8 BIT SERIAL INTERFACE
14 BIT D/A PWM OUTPUT
4 BIT A/ INPUT
K0
P0
R9
R8
P2
P1
R6
R7
FLAG
C
Z
S
ALU
KE
HOLD MODE CONTROLLER
SYSTEM CONTROL CIRCUIT
SYSTEM CLOCK CONTROL CIRCUIT
TIMING GENERATOR
FOR HIGH FREQUENCY
FOR LOW FREQUENCY
CLOCK GENERATOR
INTERVAL TIMER
WATCHDOG TIMER
12 BIT TIMER COUNTER (2 CHANNEL)
REMOTE CONTROL VERIFIER
P00 (PWM)
OUTPUT PORT (PWM OUTPUT)
K03 (CIN3) ~ K00 (CIN0)
INPUT PORT (A/D CONVERTER)
R92 (SCK)
R91 (SO)
R90 (SI)
IN/OUT PORT (SERIAL PORT)
R83 (T1)
R82 (INT1)
R81 (T2)
R80 (INT2)
IN/OUT PORT
(TIMER/COUNTER INPUT
EXTERNAL INTERRUPTER)
R73 (XYOUT)
R72 (XTIN)
R71 (WTO)
R70
IN/OUT PORT
(LOW FREQUENCY OSC TERMINAL
OUTPUT FOR WATCHDOG TIMER)
R63 ~ R60
IN/OUT PORT
P13 ~ P10
P23 ~ P20
OUTPUT PORT

uPC1237HA



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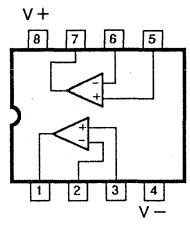
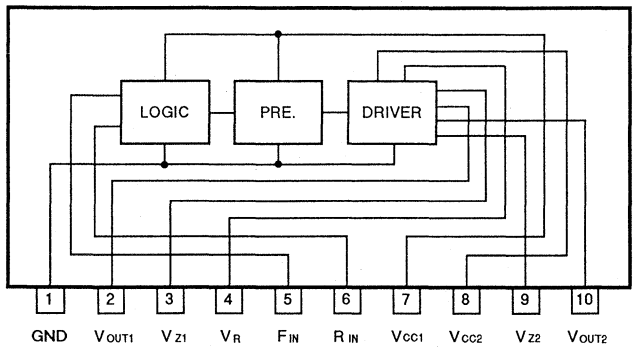
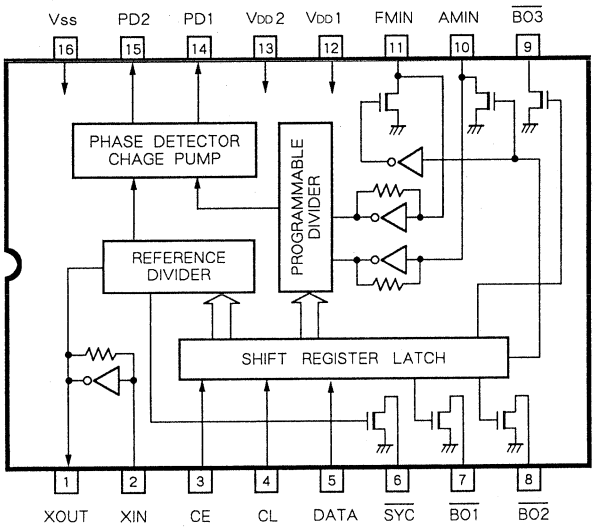


BA6209

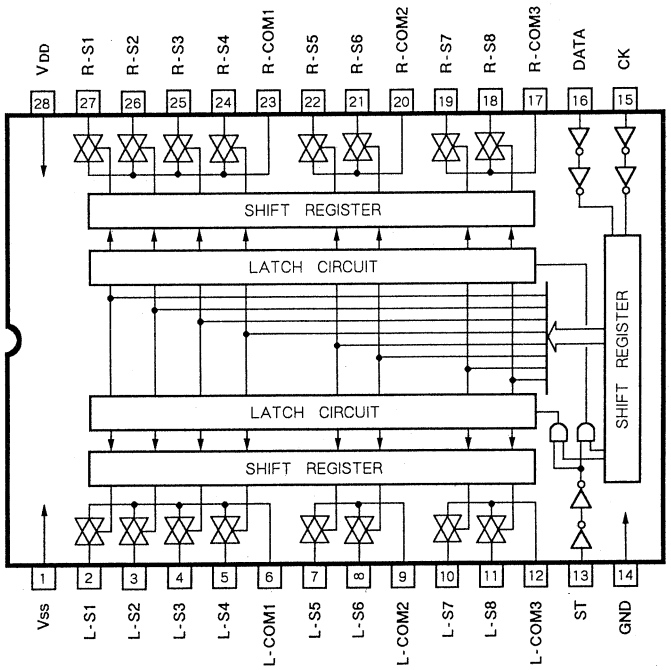


FIN	RIN	VOUT1	VOUT2
H	H	L	L
L	H	L	H
H	L	H	L
L	L	L	L

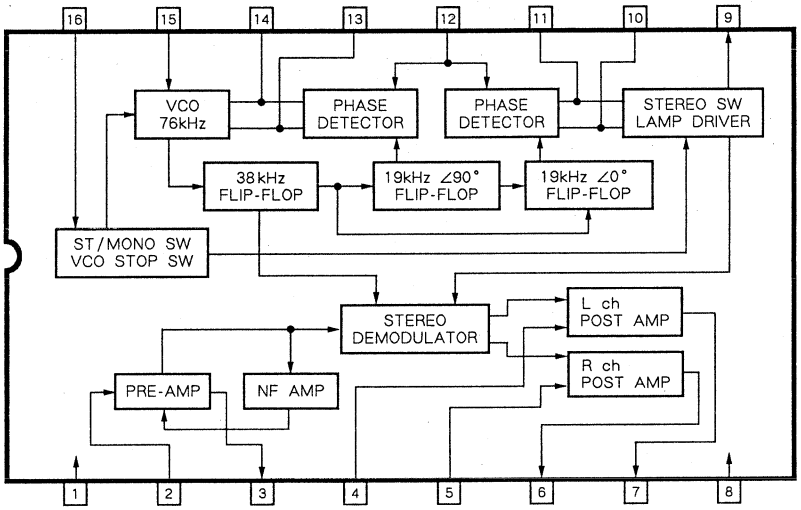
LM7001



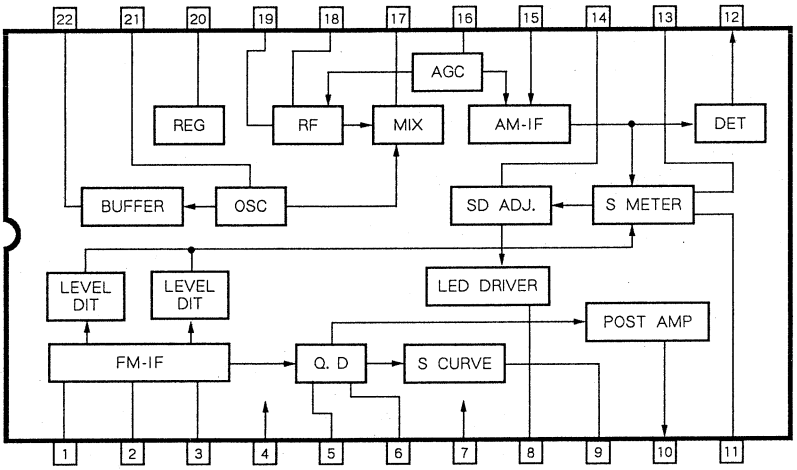
NJU7313L



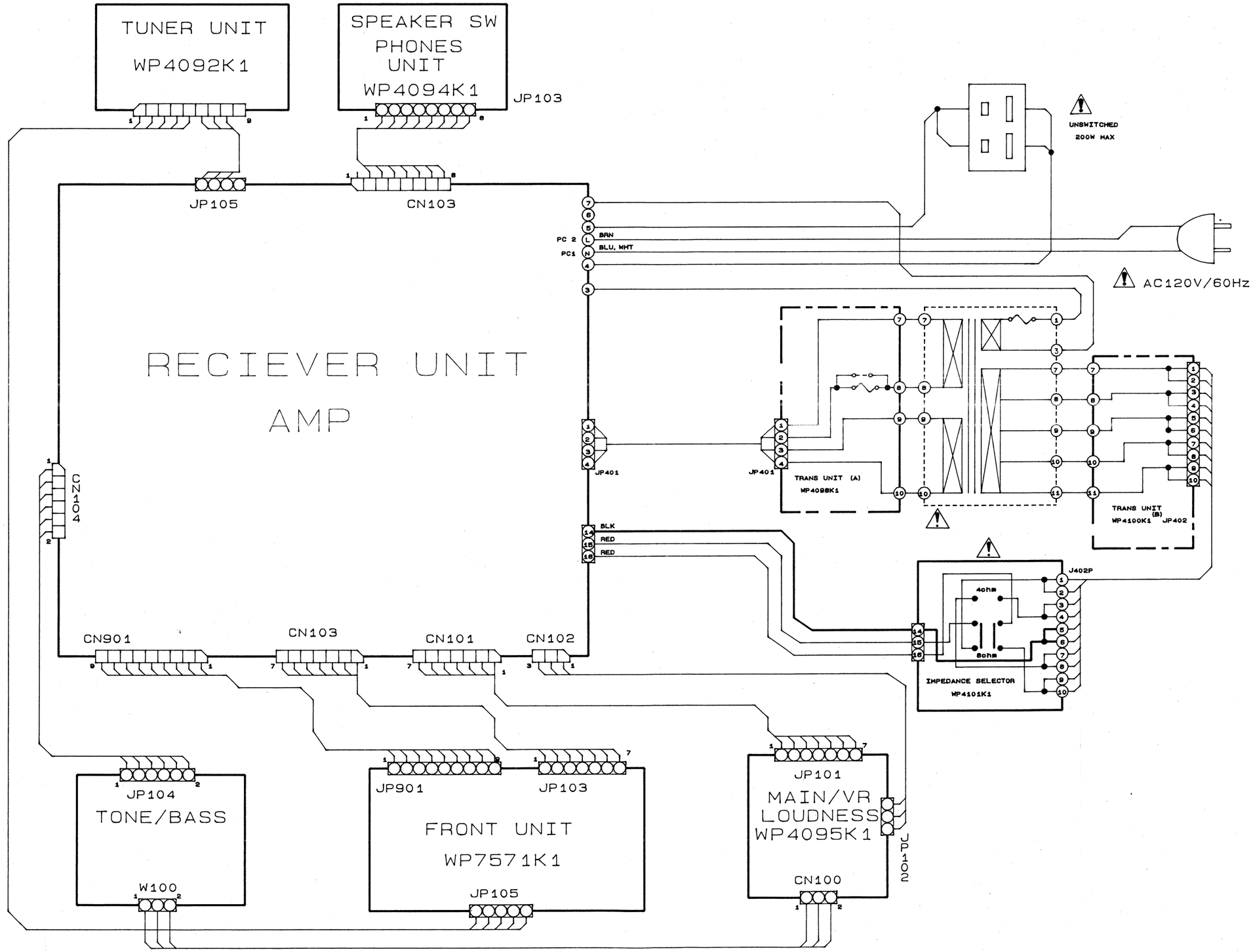
AN7470



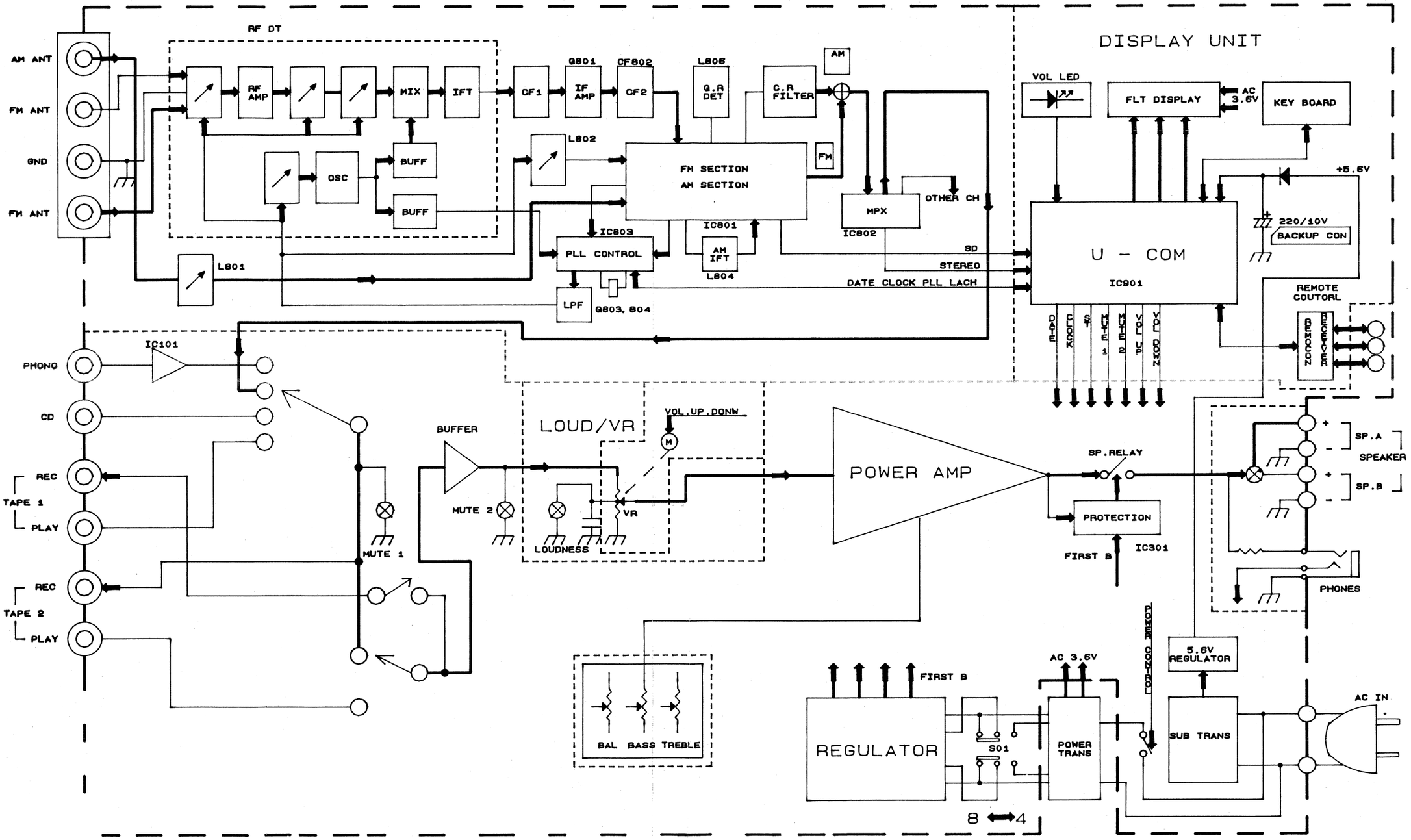
LA1265



6. WIRING DIAGRAM



7. BLOCK DIAGRAM



TEAC SCHEMATIC DIAGRAM AG-620 Front section

WE401IK1
VR INDICATOR PCB

	UL/CSA	EUROPE
R913	X	O
D909	X	O
D910	X	O

INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

AG-620

AM/FM Stereo Receiver

1st Issue; December 1992

TEAC SCHEMATIC DIAGRAM AG-620 Main section

MOTOR VR PCB

SW101 (LOUDNESS)

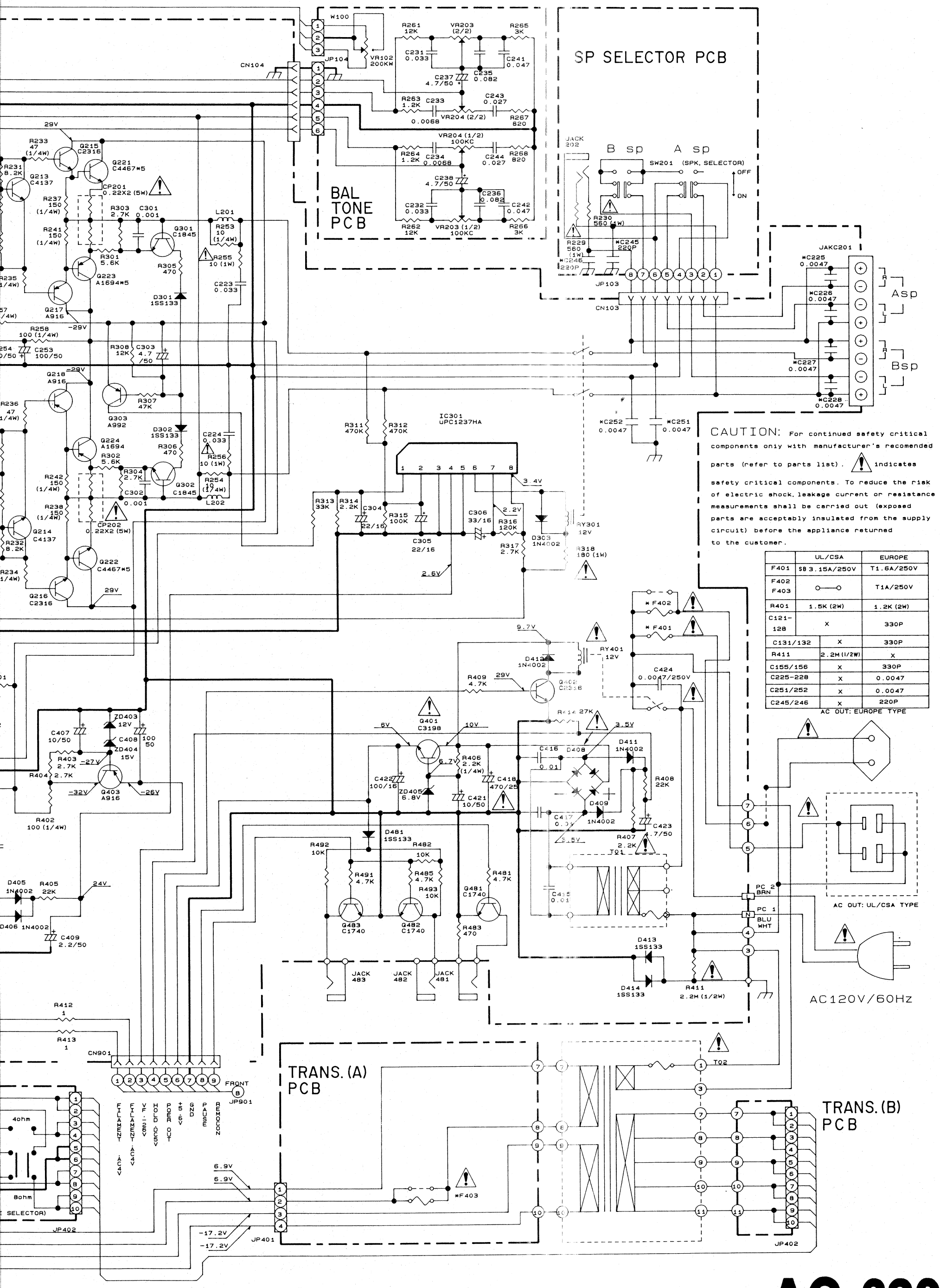
MAIN PCB

D101-106: 1SS133
IC101-104: NJM4558
D407: D3SB20/DBF40C
D408: KB103

INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

⚠ **Parts marked with this sign are safety critical components. They must always be replaced with idential components - refer to the TEAC paret list and ensure exact replacement.**



CAUTION: For continued safety critical components only with manufacturer's recomended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance returned to the customer.

	UL/CSA	EUROPE
F401	SB 3.15A/250V	T1.6A/250V
F402 F403	○—○	T1A/250V
R401	1.5K (2W)	1.2K (2W)
C121-128	X	330P
C131/132	X	330P
R411	2.2M (1/2W)	X
C155/156	X	330P
C225-228	X	0.0047
C251/252	X	0.0047
C245/246	X	220P

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TEAC SCHEMATIC DIAGRAM AG-620 Tuner section

TU801 FM FRONT-END K.P.M.X TYPE

JACK801 ANT L1 L2 C2 10P FET 2SK241 R2 0-100 C4 8P TR1 2SC2668 IFT IFOUT
C1 3P-10P D1 R6 100K R1 100K L3 L4 C3 3P-10P D2 R3 100K L5 R4 680K-1.2M C6 22P C7 2P R15 15K
GND C8 0.02 C9 0.02 C10 0.02 C5 220P C11 0.02
AGC R8 220K-680K R9 330 R10 220K-680K R11 330
VT C13 5P TR2 2SC2995 C15 15P OSCOUT TR3 2SC2669
D3 C12 6P-15P R12 0-150 C14 3P
+B C18 33P L6 L7

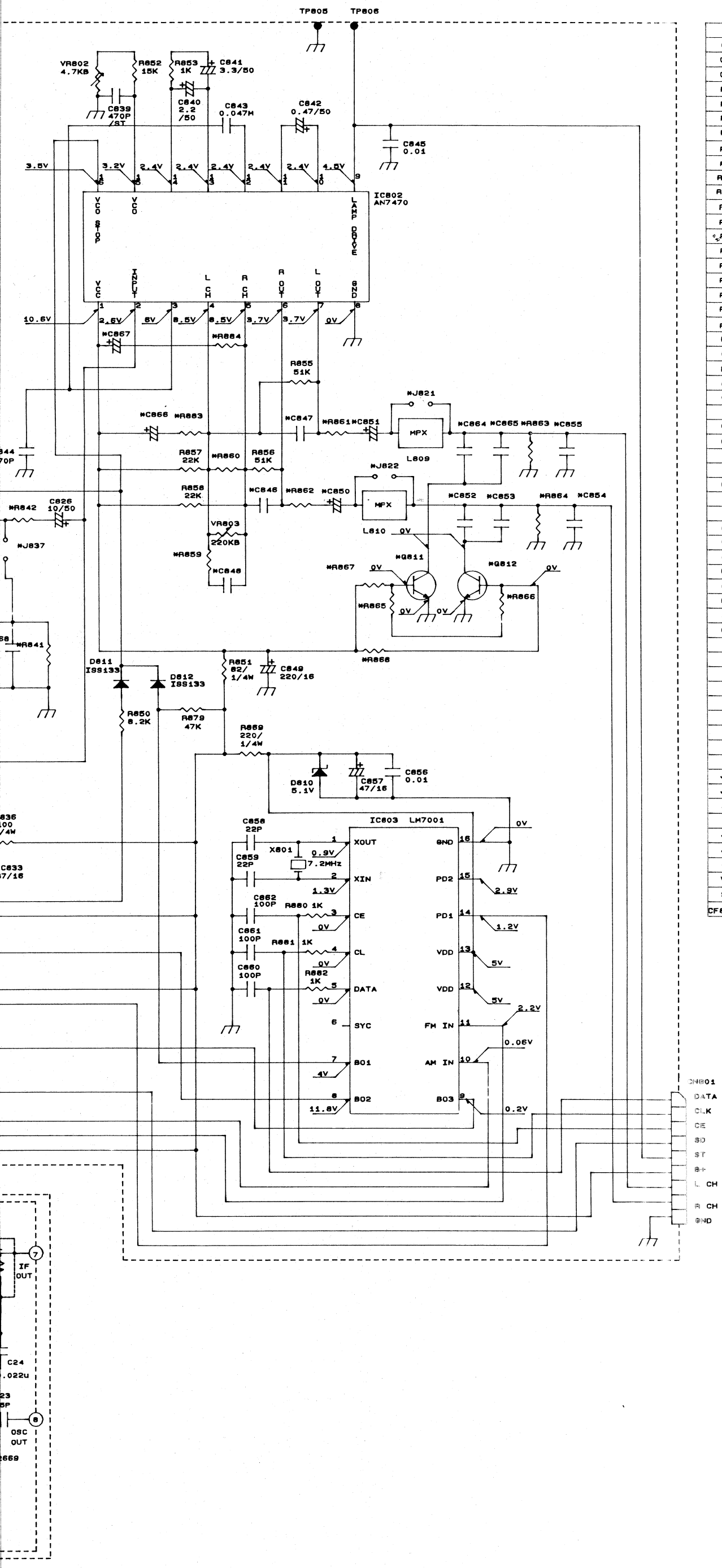
L806 PESC3I CF803 BFU450C4N C827 0.47/50 C831 100P R838 82 D813 1SS133T R886 1K C844 470P
R816 100 C807 0.01 R815 330 10.4V Q801 C31940 R811 3.3K CF801 E10.7MA5 1.2V CF802 E10.7MA5
2V R812 680 *R813 R814 330 C806 0.01 C829 0.01 C830 0.01 R837 10K C863 0.01
2.3V 2.3V 2.3V 0V 10.1V 10.1V 10.1V 4.8V 3.6V 3V 1.4V IC801 LA1265A
FM IN | FM IF PASS | FM IF PASS | GND | FM DET | FM MUTE | VCC | LPF DOWNER | S CURVE | FM OUT | AM OUT
OSC OUT | OSC REG | AM RF | AM RF | MIX | AGC | AM IF | SD | S METER | AM OUT
2.6V 3.9V 1.4V 2.3V 0V 0V 1.5V 0V 0V 0V 3.9V
C828 0.01 C816 0.022 D802 1SS133 D801 1SS133 L601 1uH L802 R817 100K R819 10K C809 0.022
R803 220 C801 1/50 L804 AMIF *R835 VR804 10KB VR801 33KB C819 0.022
C823 10/50 C822 0.022 R807 8.2K C803 0.027M C804 1/50 R808 1.8K R809 10K
Q803 C1740S Q804 KSC1845F 3.8V 1.2V R885 3.3K 0.6V C802 220/16 R806 100/1/4W *R802
TP803 TP804 TP801 TP802

*L811 *L812 *C835 *C836 *C837 *C838 *C868 *R840 *Q807 *R839 *C834 *R841
R828 10K R830 10K R831 3.3K C825 0.015M *R834 C617 2.2/50 C820 3.3/50 C821 0.01 C818 4.7/50
R836 100 1/4W C832 0.01 C833 47/16 R833 5.6K C824 0.022 R832 68K Q809 A933S 0V 12V R845 2.2K 12.8V R846 10K
C605 47/16 R810 100 1/4W Q808 A933S 12V 1.2V R843 2.2K R844 10K
*J813 *J835 *J837 *R842 C826 10/50

JACK901 *D804 C1 22P C2 15P L2 C6 8P FET 1 3SK101 C9 5P TR1 2SC2668 IFT
ANT L1 C4 0-5P R2 100K R3 100K R4 0-500 C7 5-10P D2 D3 C8 0-5P L5 820K-1.5M L6 C11 22P C12 1P IF OUT
NC D1 C5 4-10P R5 33K R6 33K C10 220P R7 R13 100 R15 470
GND C3 18P C13 0.022u C14 0.022u C15 2200P C16 0.022u R10 100 C24 0.022u
ASC R1 33K R9 10K C23 15P OSC OUT
*R801 VT FET2 2SK241 R12 10K C19 2P R14 10K R20 100 R16 180K 680K TR3 2SC2669
C21 8P C18 0-5P D4 L7 R18 10K TR2 2SC2995 C20 2-4P
R11 2.7K C17 47P C25 27P R19 C22 12P 1K-2.2K
+B
TU801 FM FRONT-END
E.T TYPE

INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.



	UL/CSA	EUROPE
Q811	X	X
Q812	X	X
Q807	X	C1740S
R801	X	4.7k
R802	X	10k
R813	56	22
R834	36K	47K
R835	15K	39K
R842	39K	47K
R839	X	3.3K
R840	X	2.2K
R841	X	47K
R859	X	470
R860	330K	X
R861	3.6K	3.3K
R862	3.6K	3.3K
R863	39K	3.3K
R864	39K	3.3K
R865	X	X
R866	X	X
R867	X	X
R868	X	X
R883	X	12K
R884	X	12K
R855	51K	47K
R856	51K	47K
C838	X	1200P
C834	X	470P
C835	X	120P
C836	X	270P
C837	X	1500P
C846	150P	1000P
C847	150P	1000P
C850	1/50	2.2/50
C851	1/50	2.2/50
C852	X	X
C853	X	X
C864	X	X
C865	X	X
C854	0.022UF	0.0047UF
C855	0.022UF	0.0047UF
C866	X	22/16
C867	X	22/16
C868	X	100P
C848	X	220P
D804	X	1SS133T
L811	X	5.6mH
L812	X	6.8mH
L809	X	MPX
L810	X	MPX
J806	O	X
J814	O	X
J837	X	O
J835	X	O
J836	X	O
J821	O	X
J822	O	X
VR803	X	220KB
SW801	X	X
CF801 802	E10.7MS5	E10.7MS3

IC801	LA1265
IC802	AN7470
IC803	LM7001
Q801	KTC3194O
Q804	KSC1845F
Q808, 809	2SA933S
Q803, 811, 812	2SC1740S
D801, 802, 811, 812	1SS133T
D810	1/2W5.1V

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AM/FM Stereo Receiver

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